

CLAIMS

What is claimed is:

- 1 1. A method, comprising:
 - 2 receiving a request for an information object from a client; and
 - 3 determining, according to an information object repository selection procedure, which of a
 - 4 number of information object repositories should service the request for the information object
 - 5 without regard as to whether the information object is actually stored at the information object
 - 6 repository selected according to the selection procedure.
- 1 2. The method of claim 1 wherein the information object repository selection procedure
 - 2 comprises mapping an address of the client to an address of the selected information object
 - 3 repository.
- 1 3. The method of claim 2 wherein the mapping is made according to specified performance
 - 2 metrics.
- 1 4. The method of claim 3 wherein the specified performance metrics comprise one or more of:
 - 2 average delay from the information object repository to the client, average processing delays at the
 - 3 information object repository, reliability of a path from the information object repository to the
 - 4 client, available bandwidth in said path, and loads on the information object repository.
- 1 5. The method of claims 2 wherein the address of the information object repository is selected
 - 2 from a number of addresses of information object repositories.
- 1 6. The method of claim 2 further comprising instructing the selected information object repository
 - 2 to obtain a copy of the information object.

1 7. The method of claim 1 wherein determining which of the number of information object
2 repositories should service the request for the information object comprises one or more of: a
3 direct cache selection process, a redirect cache selection process, a remote DNS cache selection
4 process, or a local DNS cache selection process.

1 8. The method of claim 7 wherein the direct cache selection process comprises contacting, using
2 a Web server which received the request from the client, to contact a Web router to obtain an
3 address of a topologically close information object repository to the requesting client.

1 9. The method of claim 8 wherein the direct cache selection process further comprises receiving,
2 at the Web server from the Web router, an address for the topologically close information object
3 repository.

1 10. The method of claim 9 further comprising returning, from the Web server to the client, a
2 uniform resource locator (URL) which contains the address of the topologically close information
3 object repository.

4 11. The method of claim 7 wherein the redirect cache selection process comprises contacting,
5 using a Web server which received the request from the client, a Web router to obtain an address of
6 a redirecting Web router which will service the request.

1 12. The method of claim 11 wherein the redirect cache selection process further comprises
2 returning, from the Web server to the client, a uniform resource locator (URL) which contains the
3 address of the redirecting Web router.

1 13. The method of claim 12 wherein the redirect cache selection process further comprises
2 contacting the redirecting Web router at the address contained in the URL with the request for the
3 information object.

1 14. The method of claim 13 further comprising redirecting, from the redirecting Web router, the
2 client to a topologically close information object repository which will service the request for the
3 information object.

1 15. The method of claim 14 wherein redirecting the client is accomplished using a hypertext
2 transfer protocol (http) redirect.

3 16. The method of claim 7 wherein the remote DNS cache selection process comprises returning,
4 from a Web server which received the request form the client, a statically configured domain name
5 of a redirector DNS server.

1 17. The method of claim 16 wherein the remote DNS cache selection process further comprises
2 resolving, at the redirector DNS server, the statically configured domain name to produce a
3 resolved domain name.

1 18. The method of claim 17 wherein remote DNS cache selection process further comprises
2 providing, from the redirector DNS server provides, the resolved domain name to a Web router.

1 19. The method of claim 18 wherein remote DNS cache selection process further comprises
2 receiving, at the redirector DNS server and from the Web router, an address of a topologically
3 close information object repository for the client.

1 20. The method of claim 19 further comprising providing, from the redirector DNS server, the
2 address of the topologically close information object repository to the client

3 21. The method of claim 7 wherein the local DNS cache selection process comprises returning,
4 from a Web server which received the request from the client, a uniform resource locator (URL)
5 containing a statically configured domain name.

1 22. The method of claim 21 wherein the local DNS cache selection process further comprises
2 providing, from a DNS server, the statically configured domain name to a Web router.

1 23. The method of claim 22 wherein the local DNS cache selection process further comprises
2 receiving, from the Web router, an address of a topologically close information object repository.

1 24. The method of claim 23 further comprising providing, from the DNS server, the address of the
2 topologically close information object repository to the client.

3 25. The method of claim 7 wherein the direct cache selection process is combined with the
4 redirect cache selection process.

1 26. The method of claim 7 wherein the direct cache selection process is combined with the remote
2 DNS cache selection process.

1 27. The method of claim 7 wherein the direct cache selection process is combined with the local
2 DNS cache selection process.

1 28. The method of claim 7 wherein the direct cache selection process is combined with both the
2 remote DNS cache selection process and the local DNS cache selection process.

3 29. The method of claim 7 wherein the redirect cache selection process is combined with the
4 remote DNS cache selection process.

1 30. The method of claim 7 wherein the redirect cache selection process is combined with the
2 redirect DNS cache selection process and the local DNS cache selection process.

1 31. The method of claim 7 wherein the direct cache selection process is used for information
2 objects that will be immediately loaded without user action.

1 32. The method of claim 7 wherein the redirect cache selection process is used for information
2 objects that will loaded only after some user action.

1 33. The method of claim 7 wherein the remote DNS cache selection process is used for
2 information objects that will be loaded only after some user action.

1 34. The method of claim 7 wherein the local DNS cache selection process is used for information
2 objects that will be loaded only after some user action.